HALO-FLEX™ CU 600 XLPE Insulation Three Bare Grounds Thermoplastic CPE-TP Jacket. XHHW-2 TC-ER-HL

Halo-Flex™ Type TC-ER-HL Control Cable 600 or 1000 Volt Copper Conductors, Cross Linked Polyethylene (FR-XLPE) Insulation XHHW-2 -40°C Thermoplastic Chlorinated Polyethylene CPE Jacket, Control Cable Conductor Identification Method 1 Table 2



Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Flexible Bunch Stranded, Class K Copper per ASTM B174
2. **Insulation:** Cross Linked Polyethylene (FR-XLPE) Type XHHW-2
3. **Ground:** 3 x bare symmetrical grounds with a total circular mil size equal to the phase conductor.
4. **Filler:** Polypropylene filler as needed to fill interstices
5. **Separator:** Mylar for ease of stripability. Optional metal shield
6. **Rip Cord:** Rip cord for quick removal of extruded polymeric layer and jacket
7. **Extruded Polymeric Layer:** Extruded Polymeric Barrier Layer
8. **Overall Jacket:** Low-Friction SIM Technology® -40°C Thermoplastic Chlorinated Polyethylene (CPE) Jacket.

APPLICATIONS AND FEATURES:

Southwire's Halo-Flex™ 600V TC-ER-HL or 1000V TC-ER power cables are suited for use in wet and dry areas, conduits, ducts, troughs, trays, direct burial, aerial supported by a messenger, and where superior electrical properties are desired. These cables are capable of operating continuously at the conductor temperature not in excess of 90°C for normal operation in wet and dry locations, 130°C for emergency overload, and 250°C for short circuit conditions. A gas/vapor-tight polymeric sheath is extruded over the core. Rated for use in Class I, II, or III, Division 1 & 2, Zone 1 & 2, hazardous locations per NEC Article 501, 502, and 503. Listed for exposed runs in hazardous locations (TC-ER-HL) per NEC 336.10. - 40°C cold bend and cold impact. HALO-FLEX ™ CPE jacket is made with patented SIM Technology. Cable can be installed in conduit without the aid of lubrication. PATENT www.patentsw.com

SPECIFICATIONS:

- ASTM B3 Soft or Annealed Copper Wire
- ASTM B174 Standard Specification for Bunch-Stranded Copper
- UL 44 Thermoset-Insulated Wires and Cables
- UL 1277 Electrical Power and Control Tray Cables
- UL 1685 FT4 Vertical-Tray Fire Propagation and Smoke Release Test
- UL 2225 Cables and Cable-Fittings For Use In Hazardous (Classified) Locations
- ICEA S-58-679 Control Cable Conductor Identification Method 1 Table 2
- ICEA S-95-658 (NEMA WC70) Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy
- IEEE 1202 FT4 Flame Test (70,000) BTU/hr Vertical Tray Test
- RoHS-3 Complies with European Directive 2015/863

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- ABS American Bureau of Shipping Approved
- MSHA Mine Safety Health Administration Approved

SAMPLE PRINT LEGEND:

(SEQ FOOTAGE) SOUTHWIRE® HALO-FLEX {TM} E75755 (Plant Code) {UL} XX AWG CU XX/C XHHW-2 CDRS. GW 3 X XX AWG FR-XLPE/CPE 90°C 600V TYPE TC-ER-HL OR 1000V TYPE TC-ER SUN. RES. FOR DIRECT BURIAL FT4 -40°C OIL RES I/II ABS. RoHS-3 2015/863 COMPLIANT {YYYY} 07-KA180012-MSHA

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Table 1 – Physical and Electrical Data

Stock Number	Cond. Size	Cond. Number	Cond. Strands	Insul. Thickness	Ground	Jacket Thickness	Approx. OD	Copper Weight	Approx. Weight	DC Resistance @ 25°C	AC Resistance @ 75°C	Inductive Rectance	Min Bending Radius	Allowable Ampacity 75°C	Allowable Ampacity 90°C
	AWG	No.	strands	mil	No. x AWG	mil	inch	lb / 1000ft	lb / 1000ft	Ω /1000ft	Ω /1000ft	Ω/1000ft	inch	Amp	Amp
14 AWG															
679778◊	14	3	41	30	3 x 18	45	0.505	53	157	2.814	3.391	0.058	2.0	20	25
10 AWG															
679834◊	10	3	105	30	3 x 14	60	0.565	128	225	1.111	1.339	0.050	2.3	35	40
14 AWG															
679782◊	14	4	41	30	3 x 18	45	0.569	66	206	2.814	3.391	0.058	2.3	16	20
12 AWG															
679800◊	12	4	65	30	3 x 16	60	0.619	105	261	1.774	2.137	0.054	2.5	20	24
10 AWG															
679838◊	10	4	105	30	3 x 14	60	0.675	167	338	1.111	1.339	0.050	2.7	28	32
12 AWG															
679797◊	12	3	65	30	3 x 16	45	0.680	84	254	1.774	2.137	0.054	2.7	25	30

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

* Ampacities based upon 2023 NEC Table 310.16 and do not take into account the overcurrent protection limitations in NEC 240.4(D) of 15 Amps for 14 AWG CU, 20 Amps for 12 AWG CU, and 30 Amps for 10 AWG CU (independent of the conductor temperature rating and stranding if size is present in table). Also, see NEC sections 310.15 and 110.14(C) for additional requirements.

* Ampacities have been adjusted for more than Three Current-Carrying Conductors.